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**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re: Patent application of :  
Lewis A. Chodash *et al.* :  
 : Group Art Unit: 1642  
Serial No.: 10/032,254 :  
 :  
Filed: December 21, 2001 : Examiner:  
 : Steven L. Rawlings  
For: PREGNANCY UP-REGULATED, :  
NONUBIQUITOUS CAM KINASE :

**DECLARATION UNDER 37 C.F.R 1.132**

We, Lewis A. Chodash and Heather P. Gardner, declare as follows:

1. I, Lewis A. Chodash, am a member of the faculty of the University of Pennsylvania School of Medicine, Department of Molecular and Cellular Engineering and Division of Endocrinology, Diabetes and Metabolism, the assignee of the above-identified patent application.

2. I, Heather P. Gardner, am a former graduate student in the Department of Molecular and Cellular Engineering at the University of Pennsylvania School of Medicine, the assignee of the above-identified patent application.

3. We, Lewis A. Chodash and Heather P. Gardner, are the only co-inventors of the patent application.

4. We are also the co-authors, with Jayant V. Rajan, Seung I. Ha, Neal G. Copeland, Debra J. Gilbert, Nancy A. Jenkins and Sandra T. Marquis, of the following

**CERTIFICATE OF EXPRESS MAILING  
UNDER 37 C.F.R. 1.8(a)**

I hereby certify that this paper, along with any paper referred to as being attached or enclosed, I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage, as express mail (Label No. EV320479456US) addressed to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313..

BY

DATE: May 12, 2005

publication, a copy of which is attached hereto: "Cloning, Characterization and Chromosomal Localization of *Pnck*, a  $CA^{2+}$ /Calmodulin Dependent Protein Kinase," *Genomics*, 63(2):279-288 (Jan. 15, 2000).

5. Jayant V. Rajan was a graduate student, and Seung I. Ha and Sandra T. Marquis were technicians in the Chodosh lab. Their work on this project was carried out under the supervision of Lewis A. Chodosh. Neal G. Copeland, Debra J. Gilbert, and Nancy A. Jenkins were employees of the National Institutes of Health and, at our request and direction, mapped the chromosomal location of the murine *Pnck* gene.

6. None of Rajan, Ha, Copeland, Gilbert, Jenkins or Marquis contributed to the conception of the invention claimed in the patent application.

We declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 4/11/05

  
LEWIS A. CHODOSH

Date: \_\_\_\_\_

\_\_\_\_\_  
HEATHER P. GARDNER



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*Debra A. Cocchi*

DATE: May 12, 2005

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Date: \_\_\_\_\_

\_\_\_\_\_  
LEWIS A. CHODOSH

Date: 4-12-05

\_\_\_\_\_  
  
HEATHER P. GARDNER



## Sequence Revision History

[PubMed](#)[Nucleotide](#)[Protein](#)[Genome](#)[Structure](#)[PMC](#)[Taxonomy](#)[OMIM](#)**Find** (*Accessions, GI numbers or Fasta style SeqIds*) [About Entrez](#)**Show**

difference between I and II as

[Entrez](#)

### Revision history for 6525258

[Search for Genes](#)

LocusLink provides curated information for human, fruit fly, mouse, rat, and zebrafish

GI	Version	Update Date	Status	I	II
6525258	1	<a href="#">Jul 25 2002 12:44 PM</a>	Live	<input checked="" type="radio"/>	<input type="radio"/>
6525258	1	<a href="#">Dec 6 1999 10:22 AM</a>	Dead	<input type="radio"/>	<input checked="" type="radio"/>

Accession [AB023027](#) was first seen at NCBI on Dec 6 1999 10:22 AM[Help|FAQ](#)

Batch Entrez: Upload a file of GI or accession numbers to retrieve protein or nucleotide sequences

[Check sequence revision history](#)[How to create WWW links to Entrez](#)[LinkOut](#)[Cubby](#)[Related resources](#)[BLAST](#)[Reference sequence project](#)[LocusLink](#)[Clusters of orthologous groups](#)[Protein reviews on the web](#)

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## Sequence Revision History

PubMed

Nucleotide

Protein

Genome

Structure

PMC

Taxonomy

OMIM

**Find** (Accessions, GI numbers or Fasta style SeqIds)



About Entrez

Show difference in  format

	Gi	Version	Update Date
Entrez	6525258	1	Jul 25 2002 12:44 PM
	6525258	1	Dec 6 1999 10:22 AM

### Search for Genes

LocusLink provides curated information for human, fruit fly, mouse, rat, and zebrafish

Query= gi|6525258|dbj|AB023027.1| Mus musculus mCaMK1-beta2 mRNA, complete cds  
(1032 letters)

### Help/FAQ

<gi|6525258|dbj|AB023027.1|AB023027 Mus musculus mCaMK1-beta2 mRNA, complete cds  
Length = 1032

Batch Entrez: Upload a file of GI or accession numbers to retrieve protein OR nucleotide sequences

Score = 2004 bits (1011), Expect = 0.0  
Identities = 1025/1032 (99%)  
Strand = Plus / Plus

### Check sequence revision history

Query: 1 atgctgctgctcaagaaacagacggaggacatcagcagtgctctatgagatccggga  
|||||  
Sbjct: 1 atgctgctgctcaagaaacagacggaggacatcagcagtgctctatgagatccggga

### How to create WWW links to Entrez

### LinkOut

Query: 61 ctgggctcgggtgccttctctgaggtgatgctggcccaggaaaggggctctgctca  
|||||  
Sbjct: 61 ctgggctcgggtgccttctctgaggtgatgctggcccaggaaaggggctctgctca

### Cubby

### Related resources

Query: 121 gtggccctcaagtgcattcccaagaaagcacttcggggcaaggaggccctggtgga  
|||||  
Sbjct: 121 gtggccctcaagtgcattcccaagaaagcacttcggggcaaggaggccctggtgga

### BLAST

### Reference sequence project

### LocusLink

Query: 181 gagatcgcggtacttcgcagaatcagccatcccaacattgtggctctggaggacgt  
|||||  
Sbjct: 181 gagatcgcggtacttcgcagaatcagccatcccaacattgtggctctggaggacgt

### Clusters of orthologous groups

### Protein reviews on the web

Query: 241 gagagtccttctcatctctacttggccatggagctggtaacaggtggtgaactgtt  
|||||  
Sbjct: 241 gagagtccttctcatctctacttggccatggagctggtaacaggtggtgaactgtt

Query: 301 cgcacatcatggagcggggctcctacacagagaaggacgccagccaccttgtagggca  
|||||  
Sbjct: 301 cgcacatcatggagcggggctcctacacagagaaggacgccagccaccttgtagggca

Query: 361 cttggcgctgtctcctaccttcatagcctgggcatcgctgcaccgggacctaagcc  
|||||  
Sbjct: 361 cttggcgctgtctcctaccttcatagcctgggcatcgctgcaccgggacctaagcc

Query: 421 aacctcctctatgccacaccttttgaggactccaagatcatgggtctctgactttgg  
|||||  
Sbjct: 421 aacctcctctatgccacaccttttgaggactccaagatcatgggtctctgactttgg

Query: 481 tccaaaatacaagctggcaacatgctaggcacagcctgtgggaccccaggatatgt  
|||||  
Sbjct: 481 tccaaaatacaagctggcaacatgctaggcacagcctgtgggaccccaggatatgt

Query: 541 ccagagctcctggagcagaaaccctacgggaaggccgtagatgtgtgggacctggg  
|||||  
Sbjct: 541 ccagagctcctggagcagaaaccctacgggaaggccgtagatgtgtgggacctggg

Query: 601 atctcctacatcctgctgtgtgggtannnnnnnttctatgatgagagcgatcctga  
|||||  
Sbjct: 601 atctcctacatcctgctgtgtgggtaccccccttctatgatgagagcgatcctga

Query: 661 ttcagccagattctgagggccagctatgagtttgactcccccttttgggatgacat  
|||||  
Sbjct: 661 ttcagccagattctgagggccagctatgagtttgactcccccttttgggatgacat

Query: 721 gaatcagccaaagacttcattcgccaccttctggaacgtgatccccagaagaggtt  
|||||  
Sbjct: 721 gaatcagccaaagacttcattcgccaccttctggaacgtgatccccagaagaggtt

Query: 781 tgccagcaggccctacagcatctttggatctctggggatgcagccttcgatagggga  
|||||  
Sbjct: 781 tgccagcaggccctacagcatctttggatctctggggatgcagccttcgatagggga

Query: 841 ctgggttctgtcagtgagcagatccagaagaattttgccaggacccactggaagcg  
|||||  
Sbjct: 841 ctgggttctgtcagtgagcagatccagaagaattttgccaggacccactggaagcg

Query: 901 ttcaatgccacatcattcctacgtcacatccgtaagctgggacaaagcccagaggg  
|||||  
Sbjct: 901 ttcaatgccacatcattcctacgtcacatccgtaagctgggacaaagcccagaggg

Query: 961 gaggcctccaggcagtgatgaccgctcatagccacccaggccttgggactagcca  
|||||  
Sbjct: 961 gaggcctccaggcagtgatgaccgctcatagccacccaggccttgggactagcca

Query: 1021 cccaagtgggtga 1032  
|||||  
Sbjct: 1021 cccaagtgggtga 1032

Lambda K H  
1.37 0.711 1.31

Gapped  
Lambda K H  
1.37 0.711 1.31

Matrix: blastn matrix:1 -3  
Gap Penalties: Existence: 5, Extension: 2  
Number of Hits to DB: 4  
Number of Sequences: 0  
Number of extensions: 4  
Number of successful extensions: 4  
Number of sequences better than 10.0: 1  
Number of HSP's better than 10.0 without gapping: 1  
Number of HSP's successfully gapped in prelim test: 0  
Number of HSP's that attempted gapping in prelim test: 0  
Number of HSP's gapped (non-prelim): 1  
length of query: 1032  
length of database: 1032  
effective HSP length: 9  
effective length of query: 1023  
effective length of database: 1023  
effective search space: 1046529  
effective search space used: 1046529  
T: 0  
A: 0  
X1: 6 (11.9 bits)  
X2: 15 (29.7 bits)  
S1: 12 (24.3 bits)  
S2: 9 (18.3 bits)

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